

**KW11-P
programmable
real-time clock
engineering drawings**

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DRAWING DIRECTORY

CUSTOMER PRINT SET INDEX

THIS IS PRINT SET

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SEQUENCE

SEQUENCE

KW11-P PROG. REAL TIME CLOCK	A-PL-KW11-P-0
KW11-P PROG. REAL TIME CLOCK	D-CS-M7228-0-1
KW11-P PROG. REAL TIME CLOCK	A-AL-KW11-P-4
KW11-P PROG. REAL TIME CLOCK	A-SL-KW11-P-5

UNIT VARIATIONS

PRINT SET TYPE

VARIATION

TITLE

KW11-P

PROGRAMMABLE REAL TIME CLOCK

11/1/97 B

	X
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NOTES:

1. PIN NOTATION THROUGHOUT IS ORDERED UPON MODULE PLACEMENT IN THE BACKPLANE MODULE REFERENCE ALONE IS OBTAINED BY CONVERTING THE FIRST LETTER ACCORDING TO THE PIN NOMENCLATURE CHART AT RIGHT.

2. ALL SIGNALS THAT HAVE MODULE PINS ARE SO NOTED: MULTIPLE NOTATIONS OF THE SAME SIGNALS WITHIN A MODULE HAVE THE PIN NOTED ON EACH. AN INPUT SIGNAL IS NOTED ONLY ONCE PER SHEET UNLESS SEPERATE PINS ARE USED.

MULTIPLE INPUTS ARE CONNECTED. MODULE OUTPUT SIGNALS ARE BROUGHT TO THE EXTREME RIGHT OF EACH SHEET.

3. SIGNAL SOURCE NOTATION (KVN-2, FOR EXAMPLE) IDENTIFIES THE SIGNAL SOURCE KVN INDICATES THAT THE SOURCE IS IN THE KVNII-P THE NUMBER INDICATES THE SHEET WITHIN THE SET. SIGNALS WITH A "BUS" PREFIX REPRESENT A "WIRED OR" SITUATION AND MULTIPLE SOURCES FOR THE SIGNAL CAN EXIST.

4. FOR NORMAL OPERATION JUMPER JB IS NOT INSTALLED.

5. INSTALLATION PROCEDURE: TO PROVIDE SIGNAL LTC L TO LINE FREQUENCY INPUT OF KVNII-P ADD A 30 AWG WIRE FROM THE FOLLOWING PINS TO CEI OF THE SLOT CHOSEN FOR INSTALLATION.

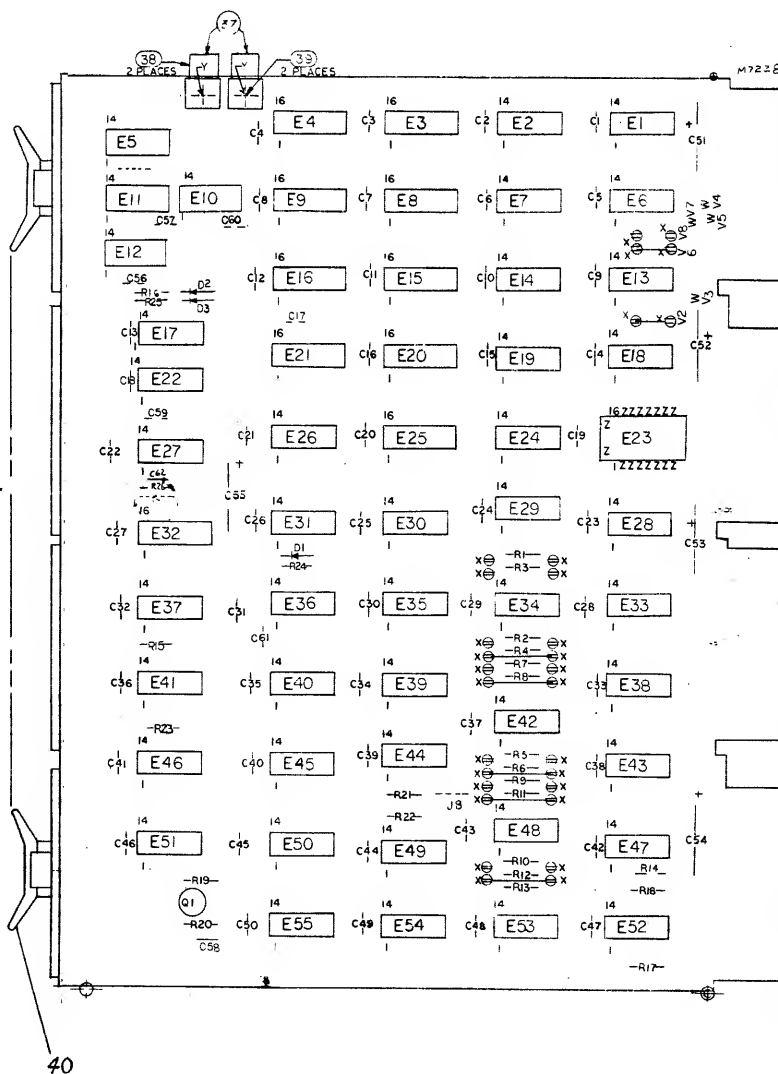
IN DDII: PIN A0 3 P2

IN KAI: PIN A1 3 P2

IN PDP 11/05: PIN C01D1

IN PDP 11/45: PIN C01A1

6. UNLESS OTHERWISE SPECIFIED, RESISTANCE IS IN OHMS, CAPACITANCE IS IN PICO FARADS CAPACITORS WITHOUT ANY NOTED VALUES ARE .01 UF.



PIN NOMENCLATURE

MODULE BACK PLANE

QTY	REF. DESIGNATION	DESCRIPTION	PART NO.	ITEM NO.
2	V2, V6	INSULATED JUMPER	9009185	45
4	V3, 4, 5, 7	TERMINAL, TURRET-SOLDER	9007791	44
1	E27	IC DEC 7414	1911324	43
1	R26	RES. 750 1/4W 5%	1301401	42
1	C62	CAP. .05UF 25V -20+80% DISC	1001774	41
4		HANDLE FLIF CHIR MAGENTA	9008337-06	40
2		EYELET	9007837	39
2		FASTON TAB	9009189	38
2		SHRINKABLE TUBING	9107305	37
1		PRIORITY INSERT LEVEL 6	5408780	36
30		SPLIT LUGS	9006735	35
8		EYELET	9006732	34
4	E3, 8, 15, 20	IC DEC 74193	1910018	33
1	E32	IC DEC 74153	1909937	32
2	E36, 39	IC DEC 8815	1909713	31
3	E34, 42, 48	IC DEC 8242	1909712	30
9	E27, 14, 19, 24, 28, 29, 49, 54	IC DEC 8881	1909705	29
2	E35, 50	IC DEC 7404	1909686	28
5	E49, 16, 21, 25	IC DEC 8271	1909615	27
10	E16, 13, 17, 18, 33, 38, 43, 47, 52	IC DEC 8640	1911469	26
3	E11, 12, 22	IC DEC 7490	1909051	25
2	E37, E45	IC DEC 7402	1909004	24
6	E30, 31, 44, 46, 53, 55	IC DEC 7400	1905575	23
5	E26, E40, E41, E51, E10	IC DEC 7474	1905547	22
1	E3	10MHz OSCILLATOR	1811660-01	21
1	Q1	TRANS DEC 3009B	1503100	20
3	R17, R20, R4	RES. 180 1/4W 5%	1301322	19
16	R1, R13, 22, 18, 16	RES 1K 1/4W 5%	1300365	18
2	R23, R25	RES 470 1/4W 5%	1300316	17
2	R18, R19	RES 390 1/4W 5%	1300309	16
1	R24	RES 220 1/4W 5%	1300271	15
1	R21	RES 100 1/4W 5%	1300229	14
1	E23	IC SOCKET	1209838	13
1	D1	DIODE D664	1100114	12
2	D2, D3	DIODE D003	1100100	11
5	C51-C55	CAP 6.8UF 35V 10% TANT	1005306	10
53	C1-50, C56, C57, C60	CAP. .01UF 100V 20% DISC	1001610-01	9
1	C67	CAP. 1000 PF 100V 5% MICA	1000042	8
1	C58	CAP. 560 PF 100V 5% D.M.	1000025	7
1	C59	CAP. 470 PF 100V 5% D.M.	1000024	6
1		ETCHED CIRCUIT BOARD	5009677	5
		MODULE ECO HISTORY	B-MH-M7228-0-6	4
		ASSY/DRILLING HOLE LAYOUT	D-AH-M7228-0-5	3
		X-Y COORDINATE HOLE LOCATION	K-CO-M7228-0-4	2
		CIRCUIT SCHEMATIC	D-CS-M7228-0-1	1

FIRST USED ON OPTION MODEL

PDP11/20

ETCH BOARD REV. F

PARTS LIST

DRN. 2/18/75
CHK'D 5/30/75
ENG. B. Wick
PROJ. ENG. S. Wick
PROD. DATE

DATE 2/18/75
DATE 5/30/75
DATE 8/31/75
DATE 8/31/75

TITLE
KWII-P
REAL TIME CLOCK

NEXT HIGHER ASSY

A-M-KWII-P

SCALE

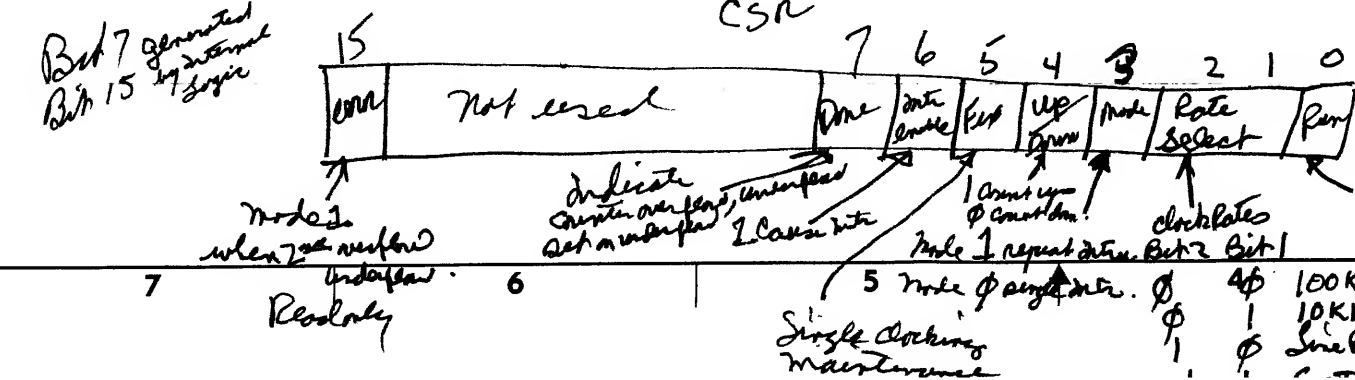
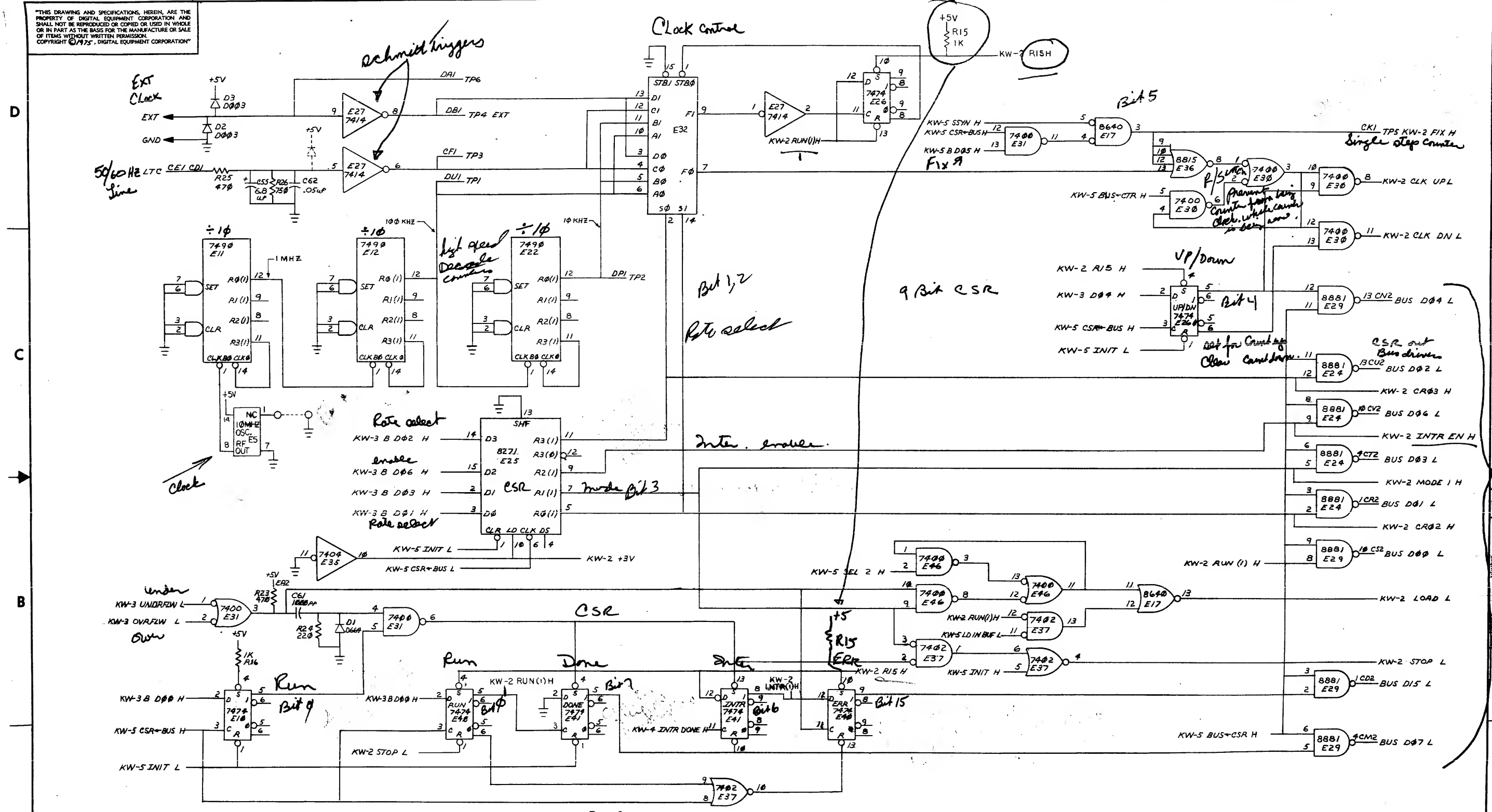
SHEET

REV. J

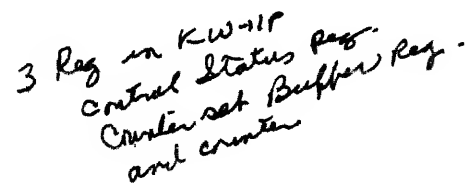
SEMICONDUCTOR CONVERSION CHART

DEC 74153	PIN 8	PIN 16
DEC 74193	PIN 8	PIN 16
DEC 7490	PIN 10	PIN 5
DEC 8271	PIN 8	PIN 16
DEC 8640	PIN 1	PIN 8
IC TYPE	GND	+5V
GND AND 5V ARE USUALLY PIN 7 AND 14 RESPECTIVELY EXCEPTIONS ARE STATED ABOVE		
IC PIN LOCATIONS		

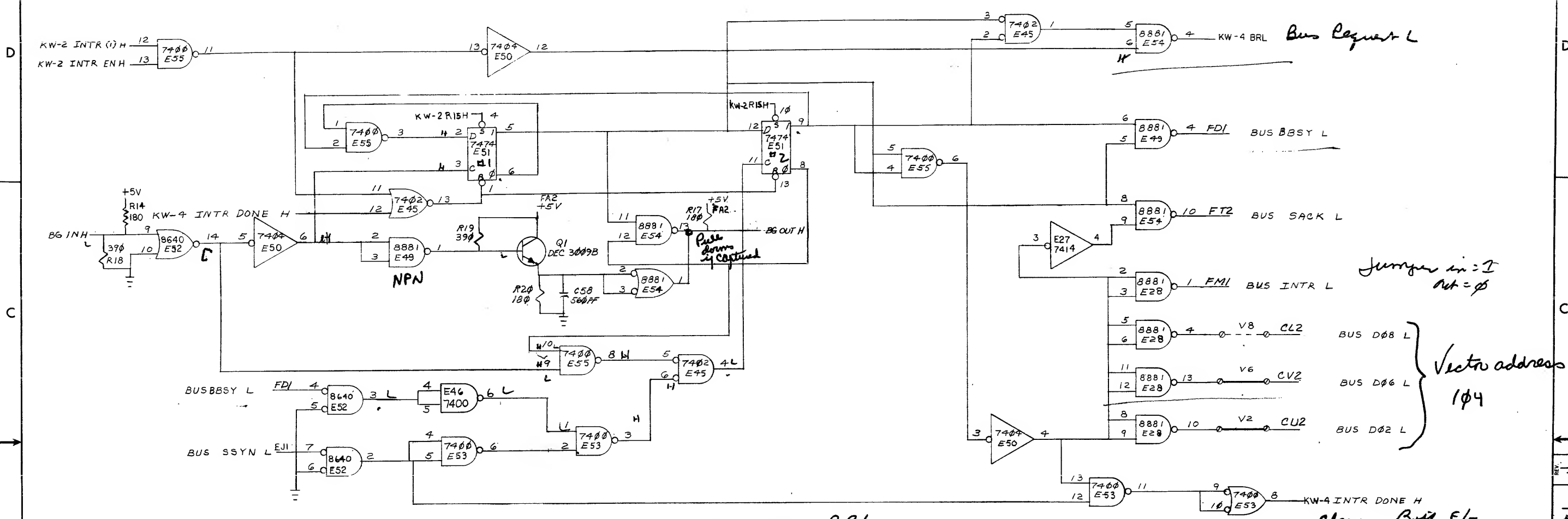
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DRN. 2 Chart	2-13-75	FIRST USED ON	digital
CHK'D 2 Phase	5-30-75	TITLE	KW11-P
ENG. B. W. W.	8-31-71	REAL TIME CLOCK	KW-2
PROJ. ENG. S. F.	8-31-71	SIZE	CODE
PROD.		NUMBER	REV.
NEXT HIGHER ASSY.		SCALE	DIST.
A-M-KW11-P		CS	M7228-0-1
SHEET 2 OF 5			



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Priority Plug BR6

DM2	BUS	BG6	INH	9	8	BUS	BG6	OUTH	DN2
DL2	BUS	BG7	OUTH	10	7	BUS	BG5	INH	DP2
DK2	BUS	BG7	INH	11	6	BUS	BG5	OUTH	DR2
				12	5	BUS	BG4	INH	DS2
DH2	BUS	BR4	L	13	4	BUS	BG4	OUTH	DT2
DF2	BUS	BR5	L	14	3	BUS	BG	OUTH	
DE2	BUS	BR6	L	15	2	BUS	BG	INH	
DD2	BUS	BR7	L	16	1				

F/F #1

CLR

BG (INH) = SETS

BG (INH) H + BBSY L Negate = STILL SET

SSYN ASSERTS = STILL SET

CLR

F/F #2

CLR = ISSUE BRL

STILL CLR = CAPTURE BG & ISSUE SACK

Set = Issue INTR L & V.A.

Still set = Intr Done H

CLR.

FIRST USED ON OPTION/MODEL	QTY.	DESCRIPTION	PART NO.	ITEM NO.
PARTS LIST				
UNLESS OTHERWISE SPECIFIED DIMENSION IN INCHES TOLERANCES	DRN Wilson	DATE 7-28-71	digital EQUIPMENT CORPORATION MAYNARD MASSACHUSETTS	
DECIMALS .XXX = .006 - .XX = .02 .X = .1	CHK'd Wilson	DATE 8-13-71	TITLE KW11-P REAL TIME CLOCK (KW-4)	
ANGLES ±0° 30'	ENG. Wilson	DATE 8-27-71	SIZE CODE DCSM7228-0-1	
REMOVE BURRS AND BREAK SHARP CORNERS SURFACE QUALITY	PROD. ENG. Stanger	DATE 8/27/71	NUMBER REV. J	
MATERIAL	NEXT HIGHER ASSY.	SCALE NONE	SHEET 4 OF 5	
FINISH				

REVISIONS	REV
CHANGE NO.	
CHK	

ACCESSORY LIST

CHECKED	10-13-71
DATE	<i>L. H. Frazier</i>
PROD	<i>L. H. Frazier</i>
DATE	<i>L. H. Frazier</i>

SECTION
ISSUED SECT.

D	DOCUMENT
DN	DOCUMENT CHANGE NOTICE
PA	PAPER TAPE ASCII
PB	PAPER TAPE BINARY
PM	PAPER TAPE READ-IN-MODE

[illegible][illegible]

SHEET 1 OF 1

SIZE	CODE
A	AL
DIST.	

NUMBER
KW11 - p - 4

REV.	ECO NO
*	

DEC FORM NO.
DRA 121

BOAC